

Measurement of Adolescent Sexual Activity and Abstinence Using the Rasch Scaling Approach as a Construct Validation Tool

ITMESA

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BACKGROUND

To design effective behavior risk reduction and risk elimination health prevention instruction we may need to better understand the correlates of the target risk behaviors, the core instructional components and desired changes among adolescents. Reliable and valid information about knowledge, attitudes, skills, and behavioral intentions with respect to abstinence or sexual activity and history of past sexual activity may help to individualize group instruction thereby increase likelihood of reaching desired outcomes in typically diverse classrooms.

Educational programs stratify students according to ability to improve effectiveness. Risk reduction with abstinence programs do not segregate students on risk factors to improve effectiveness. In this report, being abstinent or being sexually active is defined as a trait or behavioral syndrome that increases the probability of engaging in risky behaviors or engaging in health promotion behaviors and thereby increase or decrease the risk of teenage pregnancy, acquiring an STD, including HIV transmission.

PURPOSE

Purpose is to develop scales pointing to a trait or behavioral syndrome of the state of abstinence or being sexually active as characterized by knowledge, attitudes, skills, and behavioral intentions.

HYPOTHESES

The hypotheses are that with psychometrically derived scales (1) adolescents who are sexually abstinent would have higher scale and total scores than sexually active adolescents at the start and end of instruction; (2) pre-post change scale scores would jointly move in the same positive direction (increasing) providing support for a trait or latent characteristic.

BEHAVIORAL INTENTIONS SCALE,

1-5, Strongly Agree to Strongly Disagree

28.If a person tries to pressure me to participate in sexual activity, I will say no.

29.If I have sex with my boyfriend or a girlfriend it will be because we really like each other.

34.From now on I plan to save sexual activity for marriage.

42.Abstaining from sexual activity until marriage will help me to accomplish my goals in life.

43.Whether or not I had sex in the past, from now on I will wait until marriage to have sex.

18.I hope to get married and have a family someday.

SEXUAL ACTIVITY SCALE (SIX ITEMS)

46.Will you TRY to be sexually abstinent from now on and until marriage?

1 Yes **2** Yes, Probably **3** I don't know **4** No

47.Do you think that you WILL BE sexually abstinent from now on and until you are married?

1 Yes **2** Yes, Probably **3** I don't know **4** No

54.I have a strong commitment to wait until marriage before having sex.

1 Strongly Agree to **5** Strongly Disagree

56.If someone did want you to have sexual intercourse with them during the next year, what would you do?

1 I definitely would not do it.

2 I probably would not do it.

3 I'm not sure whether I will or not.

4 I probably would do it.

5 I definitely would do it.

57.How likely do you think it is that you will have sexual intercourse at any time before you get married?

1 I'm certain I won't.

2 I probably won't.

3 I'm not sure whether I will or not.

4 I probably will.

5 I'm certain I will.

RESULTS

33 Likert type items yielded 7 sub scales, one total abstinence scale and one sexual activity scale (N): basic (3) and advanced (5) knowledge; attitudes/opinions (10); skill (5); drugs & alcohol (2); condoms and contraceptives (3); behavioral intentions (5); and sexual activity (6).

See handout of questionnaire.

Shown on the right are two scales and analyses indicating appropriate discrimination in ability among adolescents and acceptable face validity and distribution of item difficulty.

		SEXUAL ACTIVITY SCALE		
	ADOLESCENT ITEM	ITEM DIFFICULTY	ABILITY MAP OF ESTIMATES	ABILITY MAP OF ESTIMATES
	3	### +	#### ######	#### ######
	3	. #####	3	3 . #####
	2	2 ##### +	2 ##### +	2 ##### +
	1	1 ##### +	1 ##### +	1 ##### +
	0	0 . ##### + Q54	0 . ##### + Q54	0 . ##### + Q54
			Q29	Q29
			Q48	Q48
			Q47	Q47
			Q57	Q57
			Q46	Q46
			Q43	Q43
			Q42	Q42
			-1	-1
			Q28	Q28
			Q18	Q18
			-2	-2
			. #	. #
			-3	-3

Each # represents 4

Fit statistics indicate sufficient coherence to keep the items in the behavioral intentions scale and the sexual activity scale with the exception to drop Q18 which did not fit in the model.
The question items to the right illustrate difficulty (top is most difficult). For example, selecting a 1 for Strongly Agree, Q29 is the most difficult behavioral intention item; and, selecting 1 to 3 for Q48 is the most difficult sexual activity scale item.
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